REMARKS

Claims 12-28 were rejected under 35 U.S.C. 102(e) as being anticipated by Song et al (US 2004/0146013 A1) (hereinafter "Song"). Claims 12-28 are pending and under consideration.

Favorable reconsideration of this application, in light of the following discussion is respectfully requested.

The cited document (US 2004/0146013 to Song et.al.) relates to wireless communications systems and in particular to TDD wireless relay systems. According to Song, a problem faced in repeaters and In TDD repeaters is that of feedback causing the system to oscillate, and that isolation between the up-link and down-link channels needs to be greater than that of FDD systems in order to prevent feedback (§0007-0008). According to Song, resolves these problems are resolved by providing a system wherein a coverage area can be extended without requiring a separate assignment of frequencies, thereby providing efficient use of frequency spectrum, without causing interference with an existing coverage area and prevent unwanted oscillation (§0011).

1. **Song does not disclosure the feature of "determining a path to convey information..."**

The Office Action asserted that the preamble of independent claim 12 is disclosed by the abstract and Fig. 1 of Song. However, neither the abstract nor Fig. 1 teaches **"determining a path to convey information**..." as recited in the preamble of claim 12 in the present application. Figure 1 (of Song) simply indicates how the coverage area of a cell can be extended through the use of a repeater comprising a directional amplifier and directional antennas (paragraphs 0015-0016). The repeater increases the range of reach of a transmission from an access point. **Song** teaches that a "**direction**" for the transmission is somehow achieved without necessarily determining anything. Specifically, Song states that "one of the (repeater) antennas is preferably aimed at a network that is to be extended" (paragraph 0037). As long as the direction is "**generally**" correct, a data transmission will be received and control circuitry can then move the antenna inclinations for purposes such as achieving a better receive power signal.

In contrast, a **path** as recited in the present application is **distinguishable** from a **direction** as recited in Song. In the present application determining a path means that certain steps are taken prior to conveying information in order to set up the different links over which a

data transfer is made. For example, a path to be determined can be either a path between a radio station and a radio access point of a WLAN on the subscriber side, or a path between two radio stations on the subscriber side in an adhoc mode of the radio communications system (paragraph 0015 of present application). A **direction** as taught by Song indicates the location/relationship between entities from one particular entity to another. A **path** indicates the physical or logical connections necessary between entities allowing for a data transmission to function between two end points. In Song, the path over which data is to be conveyed is not important.

Therefore, Song does not teach "determining a path" as recited in independent claim 12 of the present application. Applicants respectfully request that the objection to claim 12 be withdrawn.

2. **Song does not disclosure the feature of "determining at least a portion of a path..."**

Furthermore, the Office Action (page 3) asserted that Song discloses that a radio installation is any part of the radio system that determines a path (abstract and Fig. 1). However, Song does not disclose the feature of "**determining at least a portion of the path at a radio installation upon request of the first radio station**" as recited in claim 12 of the present application. Figure 1 simply illustrates how a relay station can be placed within the cell area of an access point in order to increase the range of coverage. The disclosure (paragraph 0013) shows how specific parts of the **repeater** mechanism work. It cannot be assumed that "a radio installation is any part of the radio system that determines a path." The Office Action appears to assume that the repeater disclosed in Song is a radio installation. However, it is clearly taught by Song (paragraph 0003) that a relay or repeater is a system that receives, amplifies, and re-transmits radio signals at a higher power level in order to extend a coverage area. A repeater does not perform other functions. Therefore, Song clearly teaches that a repeater cannot be in a position to determine a path as that is not its function.

Moreover, it appears that the Office Action asserts that in Song, "a radio installation is any part of the radio system that determines a path." The Office Action notes that this can be taught by the feature of "control circuitry" applying control signals to the switched directional amplifier in order to control the direction of transmissions. However in Song, no path is determined between the entities. The circuitry simply permits a received signal on one side to be transferred to the other side so that it can be transmitted. The fact that the control circuitry is

used to determine a **direction** (paragraph 0014) does not disclose that a **path** determination is made upon a request from a first radio station.

Therefore, claim 12 discloses a feature that is not disclosed in Song making it patently distinguishable from Song. Applicants respectfully request that the objection to claim 12 be withdrawn.

3. **Song does not disclosure the feature of "transmitting path identification information..."**

The Office Action further asserted that Song (paragraph 0014 and Fig. 1) notes that a path identifier to select the right path is inherent in order for a system to function. However, Song does not teach "**transmitting path identification information from the radio installation to the first radio station**." As stated above, the disclosure of Song (paragraph 0014) simply shows how the specific parts of the repeater mechanism work. The power detection unit may output power level signals that are utilized in determining the direction of transmission of the repeater. The control circuitry may output gain control signals; however, these signals do not disclose or implicitly indicate that path identification is transmitted. Song (paragraph 0044) clearly shows what these generated signals are used for, and there is absolutely nothing in the disclosure stating that a path information is being transmitted.

Therefore, claim 12 recites a feature that is not disclosed in Song making it patently distinguishable from Song. Applicants respectfully request that the objection to claim 12 be withdrawn.

4. **Song does not disclosure the feature of "transmitting from the radio installation to one or more intermediate radio station the path identification information..."**

For similar reasons as listed above, Song does not disclose the feature of "transmitting from the radio installation to one or more intermediate radio station the path identification information." Figure 1 discloses a repeater and not a radio installation. Additionally, FIG. 1 does not disclose path identification information. It appears the Office Action is trying to fit the FIG. 1 to the claimed subject-matter using hindsight.

Claim 12 recites a feature that is not disclosed in Song making it patently distinguishable from Song. Applicants respectfully request that the objection to claim 12 be withdrawn.

5. Song does not disclosure the feature of "information identifying an other intermediate radio station and information identifying the sub-band assigned..."

Furthermore, the Office Action (page 3) asserted that Song notes, "...in WLAN networks, each access point is assigned a portion of frequencies/bandwidth which are different from adjacent access points." However, Song does not disclosure the feature of "**information identifying an other intermediate radio station and information identifying the sub-band assigned to it and/or identifying the first radio station and information identifying the sub-band assigned to it and/or identifying the second radio station and information identifying the sub-band assigned to it**." Song (paragraph 0005) simply teaches the well-known fact that a frequency band available can be further subdivided in order to ensure that resources are available to a number of users. Song does not discuss or teach information identifying sub-bands let alone information identifying the radio stations being created and then transmitted. As stated previously, Song does not deal with path issues, whereby such information is vital for the correct functioning of the network.

Additionally, it appears that the Office Action assumes that the repeater is the focal point of the system in Song, and therefore the access point fits the feature of "intermediate radio station." Applicants believe this is an incorrect reading of Song. If the repeater is transmitting such information to the access point because the access point is "other/further" intermediate radio station, then the Office Action is interpreting FIG. 1 using hindsight. This logic goes against the teaching of Song. As stated above, Song (paragraph 0003) teaches that a relay or repeater is a system that receives, amplifies, and re-transmits radio signals at a higher power level in order to extend a coverage area. A repeater does not perform other functions. Therefore, a repeater cannot be the focal point of Song and the access point cannot be considered an "intermediate radio station."

Claim 12 recites a feature not disclosed in Song making it patently distinguishable from Song. Applicants respectfully request that the objection to claim 12 be withdrawn.

6. Song relates to post communication set-up and not pre-communication set-up

In addition to the above, Applicant believes **Song** relates to a point in time **after a communication set-up,** i.e. the overall link between a sender (access point) and a receiver (station) via the repeater is functioning. Distinctly, the issue of determining the particular connections (links) over which data needs to be conveyed is not relevant to Song. In Contrast, the **present application** deals with issues relating to a point in time **prior to the communication set-up**. The present application relates to issues of determining a path over which data can be transmitted **before** the communication set-up representing a point of novelty compared to Song.

Dependent Claims 13-27

Claims 13-27 depend directly or indirectly from claim 12. Applicant believes the objections with respect to claim 12 have been overcome, and therefore there is no prima facie basis to attack dependent claims 13-27. Applicants respectfully request that these claims will accordingly be allowable when independent claim 12 is allowed.

Independent claim 28

According to the Office Action (page 5), independent claim 28 was rejected for the same reason as claim 12. Applicant believes the objections with respect to claim 12 have been overcome, and therefore there is no prima facie basis to attack claim 28. Applicants respectfully request that claim 28 will accordingly be allowable when independent claim 12 is allowed.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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